RINGS XM Tour Metrics . …. June 14 2006

Tour	NOTES	IX1	QX1	OF1	OF2	OB1	OB2	IF1	IB1	IB2	IB3	PF1	PF2	QB1	OFQ1
Sunlit rings before equinox	3	V_GOOD	NONE	BAD	OK	V_GOOD	GOOD	OK	OK	GOOD	GOOD	V_GOOD	GOOD	GOOD	GOOD
Sunlit rings after equinox	4	BAD	GOOD	BAD	GOOD	V_GOOD	GOOD	GOOD	GOOD	GOOD	BAD	GOOD	OK	GOOD	OK
HI-RES LIT RINGS	19	V_GOOD	NONE	NONE	OK	V_GOOD	OK	GOOD	GOOD	OK	BAD	GOOD	GOOD	GOOD	GOOD
< 20d of Solar Equinox		83.5	0	0	40.5	146.5	40.5	57.5	57	37	22	59	45 *	48	42
Prometheus-F collision?	5	V_GOOD	V_GOOD	BAD	OK	V_GOOD	BAD	GOOD	GOOD	GOOD	GOOD	V_GOOD	GOOD	V_GOOD	V_GOOD
I > 65 deg?	8	71	40	13	22	50	32	44	44	52	31	15	22	39	13
RSS OCCs CHORD	16	GOOD	OK	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	V_GOOD	V_GOOD	OK	GOOD	GOOD	GOOD
RSS OCCS RADIAL	17	NONE	NONE	OK	GOOD	OK	V_GOOD	GOOD	GOOD	GOOD	NONE	V_GOOD	GOOD	OK	NONE
UVIS OCCS at Low Inclination	18	BAD	OK	OK	GOOD	OK	OK	OK	OK	OK	GOOD	V_GOOD	V_GOOD	GOOD	BAD
Equat. revs?	10	NONE	NONE	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
0-phase views?	7	NONE	BAD	NONE	NONE	NONE	NONE	GOOD	GOOD	NONE	NONE	BAD	GOOD	BAD	OK
RING ROCK FLYBYS	21	-------	-------	-------	-------	OK	-------	GOOD	OK	GOOD	-------	OK	OK	OK	-------
Low/med phase at < 20 Rs	1	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
High phase at <10 Rs	2	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
3 < I < 25 deg ?	9	0	3	7	10	2	6	4	4	5	7	6	7	3	3
Inclined orbits > J/Epi swap (2/10) ?	6	yes	yes	no	no	no	no	no	no	no	no	yes	no	yes	yes
Diversity of Viewing in various Geometries	20	V_GOOD	GOOD	BAD	BAD	V_GOOD	GOOD	GOOD	GOOD	GOOD	OK	OK	TBD	TBD	TBD
Final incl.	11	40	18	0	0	0	0	0	0	0	0	0	0	3	67
Ring Viewing 6+ months > Equinox	12	yes	yes	no	no	yes	no	ok	ok	ok	no	yes	no	yes	yes
Equat. after	13	--	--	2010.0	2010.0	2010.3	2009.9	2010.1	2010.1	2010.1	2009.8	2010.2			
Final petal APO hour angle	14	6.5	23 MT	17	16	9	7.5	9	2 MT	3	1 MT	23 MT	19	22	0
PETAL ROTATION DIRECTION	15	CW	CW	CCW	CCW	CW	CW	CW	CW	CW	CW	CCW	CCW	CW	CW
JUDGE #1		6	-1	-5	4	13	4	7	7	8	-2	12	9	8	4
JUDGE #2		-3	-5	-3	11	13	9	15	15	13	3	16	16	14	6
JUDGE #3															
OVERALL		RED	RED	RED	YELLOW	GREEN	YELLOW	GREEN	GREEN	GREEN	RED	GREEN	GREEN	GREEN	RED

NOTES -- items in **RED** are High Level RINGS Metrics

V_GOOD , GOOD --- meet RWG Requirements **OK --- barely acceptable** **BAD --- not acceptable**

Item

1 --- Low to Medium Phase viewing time insde 20 Rs
2 --- High Phase viewing Time inside 10 Rs
3 --- HOURS of viewing the SUNLIT RINGS in 60 days before Solar Equinox
4 --- HOURS of viewing the SUNLIT RINGS in 60 days after Solar Equinox
5 --- Viewing Conditions for Prometheus / F-Ring Collision
6 --- Presence of low to moderate inclined orbits ~6+ months after J-E orbit swap to look at A-Ring Wave structures
7 --- Opportunities to observer Zero Phase passage thru the Rings
8 --- Number of Orbits with Inclination of 65 degrees or more
9 --- Number of Orbits with inclination between 3 and 25 degrees
10 --- Does Tour contain some Equatorial Revs
11 --- Inclination at end of Tour
12 --- Do we have good Ring Viewing conditions ~6 months after Equinox
13 --- Date when Tours orbits become Equatorial
14 --- Final Petal Apoapsis Hour Angle
15 --- Direction of Petal Rotation
16 --- RSS OCCs at hich inclination early in the Tour -- CHORD Occs
17 --- RSS OCCS at low inclination -- RADIAL Occs
18 --- UVIS Stellar Occs at low inclination
19 --- Hi Res viewing conditions of Lit Rings within 20 days of Solar Equinox
20 --- OVERALL Viewing in various Geometries (based on HOURS of viewing time at low-medium and high SHA for LIT and UNLIT Rings
21 --- Quality of Rock Flybys on Prime Ring Rock Targets.